## **BUNIN ASSOCIATES**

Actuarial-Economic Consultants

DAVID T. BUNIN, FSA ROYAL A. BUNIN, MBA THE WYNNEWOOD HOUSE, SUITE 109 300 EAST LANCASTER AVENUE WYNNEWOOD, PA 19096

PHONE: (610) 642-4700

FAX: (610) 642-4787

E-Mail: BuninAssoc@aol.com

#### ACTUARIAL-ECONOMIC REPORT

Loss of Earning Capacity and Fringe Benefits

of

Kimbra M. Criswell

Prepared by:

Royal A. Bunin, M.B.A.

Prepared for:

Nelson Levin, Esq.

Kats Jamison

van der Veen & Associates

25 Bustleton Pike

Feasterville, PA 19053

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#### **BACKGROUND**

Kimbra M. Criswell was born on November 2, 1978 and is, therefore, 28.2 years of age.

Ms. Criswell sustained permanent disabilities in a work related accident on May 23, 2002. At that time, she was functioning as a traveling x-ray technician for Aureus Medical. Answers to Interrogatories and her Deposition Testimony indicate she was paid at the rate of \$25.00 per hour and was working 40 hours per week. This is equivalent to annual earnings of \$52,000 per year. Ms. Criswell began her employment with Aureus in September 2000, and was unable to continue working for them following the May 23, 2002 injury. Tax records indicate she earned a total of \$41,492 in 2000, and \$48,208 in 2001, her last full year of employment with Aureus.

According to Answers to Interrogatories and her Deposition Testimony, Ms. Criswell's injuries include, inter alia, RSD, Achilles tear, IT band/knee pain, etc. She has undergone various medical interventions including physical therapy, utilization of a leg brace, and medication. Her left foot is sensitive to touch and she has difficulty with weight bearing activities. Her foot becomes and cold and purple in color 2 to 3 times per week (which is a decrease from her earlier episodes of 2 to 3 times per day). As the result of her injuries and her work restrictions which, according to her Deposition Testimony, was limited to 4 hours per day, Ms. Criswell was out of work until she obtained part-time employment as a nanny in September 2003. She worked until November 2003, when she then obtained employment as a receptionist for Floor Depot, earning \$6 per hour. She remained so employed until March 2004, and was out of work until April 2005. Beginning in April 2005, Ms. Criswell began working for her current employer, Valley Radiologists, functioning as an x-ray technician. According to her Deposition Testimony, approximately 5 to 6 weeks prior to the date of the Deposition, she increased her hours from 4 hours per day, 5 days per week (20 hours per week) to 8 hours per day, 3 days per week (24 hours per week). She is earning at the rate of \$23.00 per hour. This is equivalent to annual earnings of \$28,704 per year, based upon working 24 hours per week. This is in contrast to her full-time employment in her former position at Aureus Medical. Ms. Criswell indicated in her Deposition Testimony that she does not have fringe benefits in her current employment, and did have fringe benefits while working at Aureus. These benefits included contributions to her 401(k) deferred compensation plan, health insurance, fully furnished and paid housing, phone, cable, vehicle allowance, etc.

# BACKGROUND (continued)

The economic value of the lost earnings and earning capacity will be based upon Ms. Criswell's diminished capacity to work fulltime. This is further substantiated by comments she made in her Deposition Testimony stating that her treating physicians indicated she will not be able to return to full-time employment in her chosen profession as an x-ray technician. Accordingly, the lost earnings and earning capacity will be based upon her diminished work capacity. In addition, calculations will be presented representing the economic value of the loss of fringe benefits that Ms. Criswell has sustained, since she does not receive benefits in her current position.

#### LIFE EXPECTANCY

As indicated previously, Ms. Criswell is currently 28.2 years of age. The life expectancy as of the current date is 53.1 additional years, based upon the 2003 U.S. Life Tables, 2000 U.S. Life Tables, prepared by the U.S. Department of Health and Human Services.

Adding the life expectancy of 53.1 years to the current age of 28.2 years results in an expected life span of 81.3 years.

#### WORK-LIFE EXPECTANCY

The work-life expectancy as of the current date is 38.8 years, based upon retirement at the age of 67, the age at which an individual with Ms. Criswell's date of birth would become eligible to begin receiving full Social Security retirement benefits.

#### PAST LOST EARNINGS

The past lost earnings are measured from the date of injury through the current date, utilizing an appropriate measure of the lost earnings for that period.

As indicated in the Background section of this report, Ms. Criswell was working full-time, 40 hours per week, at the rate of \$25 per hour at the time of her injury. At the time of the injury, Ms. Criswell was employed at Aureus Medical, earning at the rate of \$25 per hour. This is equivalent to annualized earnings at the rate of \$52,000 per year. Her tax returns indicate that she earned \$41,492 in 2000 and \$42,208 in 2001.

A conservative allowance is made for increases in the rate of earnings at the rate of 3.5% per year. This 3.5% per year represents a reasonable rate of increase based upon the gross rate and real rate of workers' earnings in the U.S. labor market for the past several years according to (1) Table B-50: "Changes in productivity and related data, Business Sector, 1959-2004," as published by the U.S. Department of Labor, Bureau of Labor Statistics, and printed in the February, 2005 Economic Report to the President, and (2) Productivity & Costs, (Source: USDL 05-344, March 3, 2005), published by the U.S. Department of Labor, Bureau of Labor Statistics.

After allowing for such increases in earnings, the current projected rate of earnings for Ms. Criswell's former position as a full-time x-ray technician, would be in the amount of \$60,282\$ per year.

Following the injury, Ms. Criswell worked as a part-time nanny for several months in 2003, and then initiated employment as a receptionist, both jobs paying at the rate of \$6 per hour. continued her job as a receptionist until March 2004. She was out of work until April 2005 when she obtained her current position as an x-ray technician with Valley Radiologists. She increased her hours approximately 6 weeks prior to her Deposition Testimony (June 1, 2006) from 20 hours per week to 24 hours per week. indicated she was earning at the rate of \$23 per hour at that time, which is equivalent to annual earnings of \$28,704 per year, working 24 hours per week. After allowing for increases through the current date at the rate of 3% per year, on the basis described above, the projected rate of earnings in Ms. Criswell's current position would be \$29,565 per year. Accordingly, the current annual loss of earnings and earning capacity would be \$30,717 per year (\$60,282 less \$29,565).

Based on the above, the total past lost earnings, measured from the date of injury through the current date, would be in the amount of \$212,068.

#### FUTURE LOST EARNING CAPACITY

The future lost earning capacity is measured from the current date throughout the duration of the work-life expectancy period, based upon the current projected annual loss of earning capacity in the amount of \$30,717 per year. As indicated previously, the current projected rate of earnings for Ms. Criswell's former position as a full-time x-ray technician would be \$60,282 per year. The projected rate of earnings in her current position, working 24 hours per week, would be in the amount of \$29,565 per year, thereby resulting in a loss of earning capacity of \$30,717 per year.

The future lost earning capacity is calculated making appropriate allowances for future increases in earnings due to inflation and productivity. It is also necessary to reduce such earnings to present value, that is, to determine the amount of money which, when invested currently, would provide for the future lost earnings.

The calculation of the present value of the earnings which have been increased (by inflation and productivity) can be approximated by a net interest basis, in which the net interest rate is the difference between the interest rate and the sum of the inflation and productivity rates. In some situations, increases in earnings due to price and wage inflation, and productivity, would produce an offset with the appropriate after-tax, risk-free rate of interest.

The above method is appropriate even if there are future changes in rates of inflation, productivity and interest. Generally, however, the difference between the interest rate less the growth rates (productivity and inflation) tends to be constant and generally equal to approximately 2% per year except in those situations where growth and interest rates produce an offset.

On this basis, the present value of the future lost earning capacity would be in the amount of \$823,551.

#### LOST FRINGE BENEFITS

In addition to the lost earnings, there would also be an economic value of the lost fringe benefits.

Ms. Criswell does not receive fringe benefits in her current employment. She did receive fringe benefits in her previous employment as a full-time x-ray technician which included, among other things, furnished housing, car allowance, health coverage, 401(k) deferred compensation plan, etc.

The average value of employee fringe benefits in the U.S. labor market ranges between 20% and 30% of gross earnings, according to Table No.646: "Employer Costs for Employee Compensation Per Hour Worked: 2003", as contained in the 2003 Statistical Abstract of the United States (source: U.S. Bureau of Labor Statistics, USDL 03-297), and data contained in the National Compensation Survey, (NCS), published by the U.S. Department of Labor, Bureau of Labor Statistics. According to the statistics contained in the data cited above, health coverage would be approximately 10% of earnings. On this basis, the lost fringe benefits will be conservatively measured as 20% of the lost earnings from her full-time position with Aureus Medical.

On this basis, the past lost fringe benefits would be in the amount of \$51,874.

The present value of the future lost fringe benefits, measured from the current date throughout the duration of the work-life expectancy period, and utilizing the net interest rate method, would be in the amount of \$323,243.

#### SUMMARY

Past Lost Earnings (net)	\$	212,068
Present Value of Future Lost Earnings (net)		823,551
Past Lost Fringe Benefits		51,874
Present Value of Future Lost Fringe Benefits		323,243
TOTAL	\$1	,410,736

Note: All opinions expressed in this report are held to a reasonable degree of actuarial and economic certainty.

#### ROYAL A. BUNIN, MBA

#### Actuarial-Economic Consultant

Office:

**BUNIN ASSOCIATES** The Wynnewood House, Suite 109 300 East Lancaster Avenue Wynnewood, PA 19096 (610) 642-4700

Residence:

401 Conshohocken State Road Bala Cynwyd, PA 19004 (610) 667-3570

#### **EDUCATION:**

Master of Business Administration, MBA, 1990, The Fox School of Business and Management, Department of Economics, Temple University. Major: Economics, Finance and Statistics.

Bachelor of Business Administration, Cum Laude, 1988, The Fox School of Business and Management, Department of Economics, Temple University. Major: Economics; Minor Concentration: Mathematics and Statistics.

#### **CURRENT EMPLOYMENT:**

#### **CONSULTING:**

BUNIN ASSOCIATES: May 1, 1983 to the present. General Partner since January 1, 1997. Actuarial-economic consulting practice, providing services for the legal profession:

- 1) Initial analysis, subsequent research and development, and final preparation of written reports detailing past, current and projected economic losses.
- 2) Expert testimony on economic damages and expertise opinion regarding future projected losses.
- 3) Typical areas of concentration:

**Earning Capacity** Fringe Benefits

Household Services **Future Medical Costs** 

Retirement Benefits

Lost Profits

Royal A. Bunin, M.B.A.

Page Two

## **CURRENT EMPLOYMENT: (continued)**

#### **TEACHING:**

#### TEMPLE UNIVERSITY:

The Fox School of Business and Management, Department of Economics.

Adjunct Instructor. Initial Appointment: Fall, 1999

Courses: Introduction to Microeconomics, 3 Credit Hours.

Introduction to Macroeconomics, 3 Credit Hours.

Global Economic Issues, 3 Credit Hours.

#### ROWAN UNIVERSITY:

College of Liberal Arts and Sciences, Department of Economics.

Adjunct Instructor. Initial Appointment: Fall, 2000

Courses: Introduction to Microeconomics, 3 Credit Hours.

### **PROFESSIONAL PRESENTATIONS:**

Speaker at the "Damages in a Wrongful Death Case" CLE Seminar, Presented by the Young Lawyers Committee and the Camden County Bar Association.

Speaker at the "Economic Damages Round Table" CLE Seminar, Presented by the Association of Trial Lawyers of America-New Jersey Educational Foundation.

#### **PROFESSIONAL SOCIETIES:**

- 1) American Economic Association
- 2) National Association of Forensic Economics
- 3) Philadelphia Estate Planning Council
- 4) Temple University, School of Business and Management, Alumni Association
- 5) American Academy of Economic and Financial Experts

#### **PROFESSIONAL DESIGNATIONS:**

Academy Certified Diplomat, American Academy of Certified Consultants and Experts.

Royal A. Bunin, M.B.A.

Page Three

#### **COURT TESTIMONY:**

Economic and actuarial testimony presented in the following jurisdictions:

1) Commonwealth of Pennsylvania Court System:

(A) Pennsylvania Commonwealth Court, (Legislative Court).

(B) Court of Common Pleas:

Adams County Dauphin County Montgomery County Berks County **Delaware County** Montour County **Bucks County** Fayette County Northampton County Cambria County Lehigh County Philadelphia County Clinton County Luzerne County Schuylkill County **Chester County** Lycoming County Washington County Columbia County Mifflin County **Wyoming County Cumberland County** Monroe County York County

2) U.S. District Court:

Pennsylvania: Harrisburg, Philadelphia, Scranton, Williamsport

Delaware: Wilmington New Jersey: Camden New York: New York City

3) U.S. Bankruptcy Court:

Pennsylvania: Wilkes Barre

4) New Jersey State Superior Court:

Atlantic County

Bergen County

Burlington County

Camden County

Camden County

CumberlandCounty

Essex County

Gloucester County

Monmouth County

Salem County

Union County

Union County

5) Delaware State Superior Court:

New Castle County

6) Maryland State Court: Anne Arudel County

7) Commonwealth of Massachusetts Superior Court:

Suffolk County

8) New York State Supreme Court:

Bronx County Nassau County Orange County
Kings County New York County Queens County
Monroe County Ontario County

Arbitrations and depositions in Pennsylvania, Maryland, New Jersey and New York

#### DAVID T. BUNIN, FSA CLU

#### Actuarial-Economic Consultant

Office:
BUNIN ASSOCIATES
The Wynnewood House, Suite 109
300 East Lancaster Avenue
Wynnewood, PA 19096
(610) 642-4700

Residence: 358 Williams Road Wynnewood, PA 19096 (610) 896-8353

#### **EDUCATION:**

B.A., University of Delaware, 1950. Mathematics, economics.

Fellow, Society of Actuaries, 1961. (Upon successful completion of required eight examinations, 1950-61, including topics of mathematics, investments, interest, life expectancy, statistics, productivity, growth factors, expense analysis, life insurance law, pensions, Social Security, etc.)

Chartered Life Underwriter 1972. (Upon successful completion of required ten college level examinations, 1965-72, including subjects of economics, finance, family budgeting, insurance, pensions, etc.)

Enrolled Actuary, Employee Retirement Income Security Act.

#### **CURRENT EMPLOYMENT:**

Private actuarial-economic consulting practice, providing services for:

- 1) Legal profession (reports, testimony and consultation on lost earning capacity in injury and death cases, and measurement of retirement benefits in divorce proceedings.)
- 2) Insurance companies (annuity settlements)
- 3) Corporate and professionals (estate planning based on value of future earning capacity)

#### **PAST EMPLOYMENT:**

1971-73. Associate Actuary, Penn Mutual Life Insurance Company, Philadelphia, PA (Product development, cost-of-living policy analysis, instruction)

1969-71. Consulting Actuary, Milliman & Robertson, Inc., Wayne, PA (Premiums, projections, valuations)

David T. Bunin, FSA, CLU

Page Two

## **PAST EMPLOYMENT (and duties)**

(continued)

1959-69. Assistant Vice President and Actuary, Sun Life Insurance Company, Baltimore, MD. (New policies, agency compensation, health insurance)

1954-59. Associate Actuary, Baltimore Life Insurance Company, Baltimore MD. (Manager of actuarial department, product development)

1953-54. Assistant Actuary, State of Maryland Insurance Department. (Analysis of policy forms, examinations of insurance companies)

1950-1953. New York Life Insurance Company, New York, NY. (Actuarial, accounting, underwriting and claim departments)

#### **PROFESSIONAL SOCIETIES:**

Society of Actuaries (by examination)

American Academy of Actuaries (charter member)

American Economic Association

Middle-Atlantic States Actuarial Club (former president)

Philadelphia Actuarial Club (former chairman of education committee)

American Society of Chartered Life Underwriters

Conference of Consulting Actuaries

## **TEACHING AND SEMINARS:**

Lecturer at Seminars of Pennsylvania, Delaware and New Jersey Trial Lawyers Association

Guest Lecturer, Temple University, School of Actuarial Science

Lecturer at Dickinson Law School Forum

Instruction of Actuarial and Insurance classes at insurance companies in Philadelphia and Baltimore

Chairman of Society of Actuaries seminar on "Actuaries in Court" at Waldorf Astoria, New York

David T. Bunin, FSA, CLU

Page Three

## GROUPS ADDRESSED ON ACTUARIAL AND ECONOMIC TOPICS

Defense Research Institute

Maryland Trial Lawyers Association

New Jersey Trial Lawyers Association

Pennsylvania Bar Institute

Pennsylvania Trial Lawyers Association

Philadelphia Association of Defense Counsel

Philadelphia Claim Association

Philadelphia Trial Lawyers Association

## **PERIODICALS IN WHICH ARTICLES HAVE APPEARED:**

The Shingle - Philadelphia Bar Association

The Barrister - Pennsylvania Trial Lawyers Association

<u>Verdict</u> - Philadelphia Trial Lawyers Association

The Florida Law Journal

#### **COURT TESTIMONY:**

Economic and actuarial testimony presented for both plaintiffs and defendants:

- 1) Common Pleas Court of Philadelphia
- 2) Federal District Court, Philadelphia, PA
- 3) Federal District Court, Reading, PA
- 4) Federal District Court, Camden, NJ
- 5) Federal District Court, New York, NJ
- 6) Other State and Federal Courts in Pennsylvania, Delaware, Maryland, New Jersey, New York, Massachusetts, Connecticut, Virginia, West Virginia, Texas and Florida